SC DEPARTMENT of ENVIRONMENTAL SERVICES

Bureau of Air Quality
PSD Construction Permit

Santee Cooper Cross Generating Station
553 Cross Station Road
Pineville, South Carolina 29468
Berkeley County

In accordance with the provisions of the Pollution Control Act, Sections 48-1-50(5), 48-1-100(A), and 48-1-110(a), the 1976 Code of Laws of South Carolina, as amended, and South Carolina Regulation 61-62, Air Pollution Control Regulations and Standards, the Bureau of Air Quality authorizes the construction of this facility and the equipment specified herein in accordance with the plans, specifications, and other information submitted in the construction permit application received on December 31, 2018, as amended. All official correspondence, plans, permit applications, and written statements are an integral part of the permit. Any false information or misrepresentation in the application for a construction permit may be grounds for permit revocation.

The construction and subsequent operation of this facility is subject to and conditioned upon the terms, limitations, standards, and schedules contained herein or as specified by this permit and its accompanying attachments.

Permit Number: **PSD-50000004 v1.0**
Agency Air Number: **0420-0030**

Issue Date: **March 5, 2025**

Steve McCaslin, P. E., Director
Air Permitting Division
Bureau of Air Quality

RECORD OF REVISIONS	
Date	**Description of Changes**

A. PROJECT DESCRIPTION, EQUIPMENT, AND CONTROL DEVICE(S)

Permission is hereby granted to install a permanent hydrated lime injection system on Boiler 3 (EU 09) and Boiler 4 (EU 10) as the control method for emissions of sulfuric acid (H_2SO_4) mist (SAM) and to install associated hydrated lime handling systems. This permit establishes BACT emissions limits for SAM for Boilers 3 and 4 reflecting use of the new BACT hydrated lime injection system and removes the previous synthetic minor SAM emissions limitations on each of the boilers that were established in PSD permit 0420-0030-CI-R1 as no longer applicable. The hydrated lime injection system shall be operated in accordance with the conditions of this permit. The hydrated lime handling system will include loading, unloading, storage, and transfer equipment. This permit also establishes PM and PM_{10} BACT emissions limits for the hydrated lime handling system. The permittee is required to operate and maintain a bin vent on each hydrated lime storage silo to control emissions from loading, unloading, storage, and transfer of hydrated lime. This permit addresses only emissions of SAM from the boilers and particulate emissions from the hydrated lime handling system. The emissions of other pollutants emitted from the boilers are addressed in PSD permit 0420-0030-CI-R1.

A.1 EXISTING EMISSION UNIT 01 (BOILER 1), UNIT 02 (BOILER 2), UNIT 09 (BOILER 3) AND EMISSION UNIT 10 (BOILER 4)

Equipment ID	Equipment Description	Sulfuric Acid Mist Control Device ID	Emission Point ID
B01	Existing 5,200 million Btu/hr nominally rated Boiler #1 equipped with Low NO_X Burners, an Electrostatic Precipitator, a Wet Limestone FGD Scrubber and Selective Catalytic Reduction System	NA	Cross1
B02	Existing 5,200 million Btu/hr nominally rated Boiler #2 equipped with Low NO_X Burners, an Electrostatic Precipitator, a Wet Limestone FGD Scrubber and Selective Catalytic Reduction System	NA	Cross2
B03	Existing 5,400 million Btu/hr nominally rated (660 MW) Boiler #3 equipped with Low NO_X Burners, an Electrostatic Precipitator, a Wet Limestone FGD Scrubber and Selective Catalytic Reduction System	HLIS3	Cross3
B04	Existing 5,400 million Btu/hr nominally rated (660 MW) Boiler #4 equipped with Low NO_X Burners, an Electrostatic Precipitator, a Wet Limestone FGD Scrubber and Selective Catalytic Reduction System	HLIS4	Cross4

Note: Boilers 1 and 2 and their associated control equipment are not being modified by this permit. However, permit conditions for Boilers 1 and 2 are being updated to reflect removal of synthetic minor limits that are no longer applicable and reinstatement of the previously applicable BACT limit for Boiler 1.

A.2 NEW HYDRATED LIME HANDLING SYSTEM (HL-HAND 3)

Equipment ID	Equipment Description	Particulate Control Device ID	Emission Point ID
HL-HAND 3	Hydrated lime handling system: loading, unloading, and transfer processes and silo with inherent bin vent	None	EP-Silo3

A.3 NEW HYDRATED LIME HANDLING SYSTEM (HL-HAND 4)

Equipment ID	Equipment Description	Particulate Control Device ID	Emission Point ID
HL-HAND 4	Hydrated Lime Handling System: loading, unloading, and transfer processes and silo with inherent bin vent	None	EP-Silo4

A.4 CONTROL DEVICES

Control Device ID	Control Device Description	Pollutant(s) Controlled	Emission Point ID
HLIS3	Permanent Hydrated Lime Injection System for Cross 3	Opacity, Sulfuric Acid Mist	Cross3
HLIS4	Permanent Hydrated Lime Injection System for Cross 4	Opacity, Sulfuric Acid Mist	Cross4

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
B.1	**Equipment ID:** B03, B04 **Control Device ID:** HLIS3, HLIS4 The owner or operator shall inspect, calibrate, adjust, and maintain continuous monitoring systems, monitoring devices, and gauges in accordance with manufacturer's specifications or good engineering practices. The owner or operator shall maintain on file all measurements including continuous monitoring system or monitoring device performance measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required in a permanent form suitable for inspection by Department personnel. (S.C. Regulation 61-62.1, Section II(J)(1)(d)) Sources required to have continuous emission monitors shall submit reports as specified in applicable parts of the permit, law, regulations, or standards.
B.2	**Equipment ID:** B03, B04 **Control Device ID:** HLIS3, HLIS4 All gauges shall be readily accessible and easily read by operating personnel and Department personnel (i.e. on ground level or easily accessible roof level). Monitoring parameter readings (e.g., pressure drop readings, flow rates, etc.) and inspection checks shall be maintained in logs (written or electronic), along with any corrective action taken when deviations occur. Each occurrence of operation outside the operational ranges, including date and time, cause, and corrective action taken, shall be recorded and kept on site. Exceedance of operational range shall not be considered a violation of an emission limit of this permit, unless the exceedance is also accompanied by other information demonstrating that a violation of an emission limit has taken place.

B. LIMITATIONS, MONITORING, AND REPORTING	
Condition Number	**Conditions**
	Reports of these occurrences shall be submitted semiannually. If there were no occurrences during the reporting period, then documentation shall be submitted to indicate such. Any alternative method for monitoring control device performance must be preapproved by the Department and shall be incorporated into the permit as set forth in S.C. Regulation 61-62.70.7.
B.3	**Equipment ID:** All **Control Device ID:** All All emissions points, duct work and other locations that are required to be tested, shall be designed and constructed in a manner to facilitate testing in accordance with applicable EPA approved source testing methods; including, but not be limited to, methods specifying test port location and sizing criteria. For any source test required under an applicable standard or permit condition, the owner, operator, or representative shall comply with S.C. Regulation 61-62.1, Section IV - Source Tests. Unless approved otherwise by the Department, the owner, operator, or representative shall ensure that source tests are conducted while the source is operating at the maximum expected production rate or other production rate or operating parameter which would result in the highest emissions for the pollutants being tested. Some sources may have to spike fuels or raw materials to avoid being subjected to a more restrictive feed or process rate. Any source test performed at a production rate less than the rated capacity may result in permit limits on emission rates, including limits on production if necessary. When conducting source tests subject to this section, the owner, operator, or representative shall provide the following: • Department access to the facility to observe source tests; • Sampling ports adequate for test methods; • Safe sampling site(s); • Safe access to sampling site(s); • Utilities for sampling and testing equipment; and • Equipment and supplies necessary for safe testing of a source. The owner or operator shall comply with any limits that result from conducting a source test at less than rated capacity. A copy of the most recent Department issued source test summary letter, whether it imposes a limit or not, shall be maintained with the operating permit, for each source that is required to conduct a source test. Site-specific test plans and amendments, notifications, and source test reports shall be submitted to the Department.
B.4	**Equipment ID:** All **Control Device ID:** All

B. LIMITATIONS, MONITORING, AND REPORTING	
Condition Number	**Conditions**
	The owner or operator shall continue to operate under all applicable requirements, including emission limits and standards, testing, monitoring, record keeping, and reporting requirements, under the existing Title V Operating Permit (TV-0420-0030), PSD Construction Permit CI.R1 (0420-0030.CI.R1), and any unincorporated construction permits that are not changed or contravened by this construction permit.
B.5	**Equipment ID** HL-HAND 3, HL-HAND 4 **Control Device ID:** None (S.C. Regulation 61-62.5, Standard No. 4, Section VIII) Particulate matter emissions shall be limited to the rate specified by use of the following equations: For process weight rates less than or equal to 30 tons per hour $E = (F)\ 4.10P^{0.67}$ For process weight rates greater than 30 tons per hour $E = (F)\ (55.0P^{0.11} - 40)$ Where E = the allowable emission rate in pounds per hour P = process weight rate in tons per hour F = effect factor from Table B in S.C. Regulation 61-62.5, Standard No. 4 For the purposes of compliance with this condition, the process boundaries are defined as follows: • HL-HAND 3 - Max Process Weight Rate 260 ton/hr • HL-HAND 4 - Max Process Weight Rate 260 ton/hr
B.6	**Equipment ID** HL-HAND 3, HL-HAND 4 **Control Device ID:** None (S.C. Regulation 61-62.5, Standard No. 4, Section IX) Where construction or modification began after December 31, 1985, emissions from these sources (including fugitive emissions) shall not exhibit an opacity greater than 20%, each. The owner or operator shall perform a visual inspection on a semiannual basis of sources subject to opacity limits. The inspection shall occur during loading operations. Logs shall be kept to record all visual inspections, noting color, duration, density (heavy or light), cause, and corrective action taken for any abnormal emissions. If a source did not operate during the required visual inspection time frame, the log shall indicate such. The owner or operator shall submit semiannual reports. The report shall include records of abnormal emissions, if any, and corrective actions taken. If the unit did not operate during the semiannual period, the report shall state so. Visual inspection means a qualitative observation of opacity during daylight hours. The observer does not need to be certified to conduct valid visual inspections. However, at a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, and observer position relative to lighting, wind, and the presence of uncombined water.

B. LIMITATIONS, MONITORING, AND REPORTING

<table>
<tr><th>Condition Number</th><th>Conditions</th></tr>
<tr><td>B.7</td><td>Equipment ID: B01, B02, B03, B04

This permit will supersede the emissions limits for sulfuric acid mist (H_2SO_4) from Boilers 01, 02, 03, and 04 contained in PSD Construction Permit 0420-0030-CI-R1. These limits were listed in Section II.A EMISSIONS LIMITATIONS within PSD Construction Permit 0420-0030-CI-R1.

This permit will supersede supporting condition 49 of PSD Construction Permit 0420-0030-CI-R1 in Section II.D ADDITIONAL CONDITIONS.

All other limitations and requirements contained in PSD Construction Permit 0420-0030-CI-R1 shall continue to apply.</td></tr>
<tr><td>B.8</td><td>Equipment ID: B01

With the removal of the synthetic minor limits for sulfuric acid (H_2SO_4) emissions established in PSD CP-0420-0030.CI.R1, Boiler 1 will have the previous sulfuric acid mist emissions limit from PSD CP 0420-0030.CA reinstated as follows:

<table>
<tr><th>Equipment ID</th><th>Pollutant</th><th>BACT Control Method</th><th>BACT Limit</th></tr>
<tr><td>B01</td><td>Sulfuric Acid Mist (SAM)</td><td>Operational Control</td><td>0.04 lb/million Btu (3-hour average) as determined by EPA Method 8 or CTM-13 (NCASI Method 8A)</td></tr>
</table>

(S.C. Regulation 61-62.5, Standard No. 7) The owner/operator shall demonstrate compliance with the 0.04 lb/million Btu BACT SAM emissions limit for Boiler 01 by conducting a one-time performance test at the maximum expected production rate or other production rate or operating parameter which would result in the highest emissions for the pollutants being tested within 180 days of the issuance of this permit. Documentation of good combustion practices shall be maintained to demonstrate continuous compliance with the BACT limit.</td></tr>
<tr><td>B.9</td><td>Equipment ID: HL-HAND 3, HL-HAND 4

(S.C. Regulation 61-62.5, Standard No. 7) Hydrated Lime Handling System 3 and Hydrated Lime Handling System 4 are subject to limitations established pursuant to S.C. Regulation 61-62.5, Standard No. 7, “Prevention of Significant Deterioration” for PM and PM_{10}, including periods of start-up and shutdown. The required Best Available Control Technology (BACT) control methods and limits for these sources were determined to be the following:

<table>
<tr><th>Equipment ID</th><th>Pollutant</th><th>BACT Control Method</th><th>BACT Limit</th></tr>
<tr><td>HL-HAND 3</td><td>PM</td><td>Proper Operation of Silo and inherent Bin Vent</td><td>0.03 lb/hr</td></tr>
</table></td></tr>
</table>

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions

HL-HAND 3	PM_{10}	Proper Operation of Silo and inherent Bin Vent	0.01 lb/hr
HL-HAND 4	PM	Proper Operation of Silo and inherent Bin Vent	0.03 lb/hr
HL-HAND 4	PM_{10}	Proper Operation of Silo and inherent Bin Vent	0.01 lb/hr

The bin vents shall be in place and operational whenever equipment or processes controlled by them are in operation. A schedule shall be implemented for the semi-annual inspection of each bin vent. Records of these events shall be maintained in logs (written or electronic) and maintained on site.

B.10

Equipment ID: B03, B04

These units are permitted to burn only coal, including synfuel, and petcoke blended up to 30% by weight as fuel, unless otherwise specified below. The use of freeze conditioning agents with coal is allowed. Fuel oil No. 2 containing 0.5% or less sulfur may be used for initial firing of each boiler startup as well as during significant boiler load changes for flame stability purposes. The use of ILFC 1032 Fuel Inhibitor is allowed as a fuel oil additive. The use of any other substances as fuel is prohibited without prior written approval from the Bureau of Air Quality. During operation of these units (unless operationally prohibited during startup and shutdown), all control devices shall be online and operating properly to include ESPs, scrubbers, low NO_X burners, SCR controls, and the hydrated lime injection system.

These sources are permitted to burn spent boiler cleaning solution, oily debris, and small quantities of activated carbon and anthracite coal used in the boiler water treatment system. These sources are permitted to burn Fuel Tech 8261 additive. These units are permitted to burn waste oil as per contingency plan dated March 27, 1985. No other waste fuels are to be burned without prior written approval from the Department.

For this permit, the term "coal" and requirements pertaining to coal shall also include the following synthetic fuel-altered coal (synfuel):

- coal with HES binder (petroleum emulsion – MSDS identification AMI-403)
- coal with NALCO 9838 binder (water based vinyl polymer)
- coal with Dow Latex DL 298NA (latex based emulsion in water)
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A chemical analysis or manufacturer's certification to show type and content of binders shall be maintained by the facility on shipments of binder or synfuel received. Emissions from use of these synfuels shall not be any greater than from use of virgin coal. The use of any other binder materials will first require review and approval by the Bureau of Air Quality prior to use.

B.11

Equipment ID: B03, B04
Control Device ID: HLIS 3, HLIS 4

B. LIMITATIONS, MONITORING, AND REPORTING

<table>
<tr><th>Condition Number</th><th>Conditions</th></tr>
<tr><td></td><td>(S.C. Regulation 61-62.5, Standard No. 7) Boiler 3 and Boiler 4 are subject to limitations established pursuant to S.C. Regulation 61-62.5, Standard No. 7, “Prevention of Significant Deterioration” for sulfuric acid mist (SAM), including periods of start-up and shutdown. The required Best Available Control Technology (BACT) control method and limits for these sources were determined to be the following:
<table>
<tr><th>Equipment ID</th><th>Pollutant</th><th>BACT Control Method</th><th>BACT Limit</th></tr>
<tr><td>B03</td><td>Sulfuric Acid Mist (SAM)</td><td>Hydrated Lime Injection</td><td>0.009 lb/million BTU (3-hour average) as determined by EPA Method 8 or CTM-13 (NCASI Method 8A)</td></tr>
<tr><td>B04</td><td>Sulfuric Acid Mist (SAM)</td><td>Hydrated Lime Injection</td><td>0.009 lb/million BTU (3-hour average) as determined by EPA Method 8 or CTM-13 (NCASI Method 8A)</td></tr>
</table>
The owner/operator shall demonstrate compliance with the BACT SAM emissions limits by conducting the required initial performance tests, conducting required annual performance tests, and continuously operating the required hydrated lime injection system in accordance with this permit when the source is in operation and combusting coal. Hydrated lime injection shall not be required until the boiler has continuously combusted any amount of coal for a period of three hours or all other control devices are engaged in operation at steady state, whichever is sooner.</td></tr>
<tr><td>B.12</td><td>Equipment ID: B03, B04
Control Device ID: HLIS 3, HLIS 4

(S.C. Regulation 61-62.5, Standard No. 7) The owner/operator shall continuously monitor boiler load (MWg), net power generated (MW_{net}), inlet SO_2 emissions of the desulfurization scrubber (SO_{2in}), and the amount of actual hydrate lime injected into the flue gas stream for each boiler. For boiler loads greater than or equal to 450 MWg, the net power generated and inlet SO_2 emissions of the desulfurization scrubber shall be used to calculate the minimum amount of hydrated lime to be injected as derived from the acid mist mitigation algorithm (AMMA) for each boiler. The hydrated lime shall be injected into the flue gas stream at the outlet to the existing selective catalytic reduction system (SCR) and the outlet of the existing electrostatic precipitator (ESP).</td></tr>
<tr><td>B.13</td><td>Equipment ID: B03, B04
Control Device ID: HLIS 3, HLIS 4

(S.C. Regulation 61-62.5, Standard No. 7) The owner or operator shall determine the minimum amount of hydrated lime that shall be injected as follows:

<u>For Boiler Loads ≥ 450 MWg</u>:</td></tr>
</table>

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
	The initial Acid Mist Mitigation Algorithm (AMMA) to be used in determining the minimum amount of hydrated lime that must be injected for loads equal to or greater than 450 MWg is the collection of the four equations below: $$Heat\ Rate\ (\text{MMBtu/MWhr}) = 12{,}573.71 + (-10.1389 * MW_{net}) + (0.0086421 * MW_{net} * MW_{net})$$ $$Heat\ Input\ (\text{MMBtu/hr}) = MW_{net} * \frac{Heat\ Rate}{1000}$$ $$SO_3\ Formation\ (\text{lb/hr}) = (Heat\ Input * SO_{2\ in} * 0.01) + (Heat\ Input * SO_{2\ in} * 0.01)$$ $$Amount\ of\ Hydrated\ Lime\ Required\ (\text{lb/hr}) = X * SO_3\ Formation$$ Where: MW_{net} = Net Power Generated SO_{2in} = inlet SO_2 Emissions of the Desulfurization Scrubber X = Ratio of Hydrated Lime to Calculated SO_3 Formation The three-hour block average amount of hydrated lime injected for loads equal to or greater than 450 MWg shall be at least as much as has been determined by the AMMA or as approved if the owner or operator makes a request to modify the AMMA as outline below. **<u>For Boiler Loads < 450 MWg:</u>** The three-hour block average amount of hydrated lime injected for loads less than 450 MWg shall be at least 873 lbs/hr or as approved if the owner or operator makes a request to modify the minimum amount of hydrated lime required as outline below. **<u>Modification Requests for Amount of Hydrated Lime Required:</u>** At the time of permit issuance, the ratio of hydrated lime to the calculated SO_3 formation, X, is set to 6. The AMMA, ratio of hydrated lime to calculated SO_3 formation, and minimum amount of hydrated lime required for boiler loads less than 450 MWg are based on information available at the time of this permit issuance. The owner or operator may request to modify the AMMA, the ratio of hydrated lime to the calculated SO_3 formation (X), or the minimum amount of hydrated lime required for boiler loads less than 450 MWg by letter to the Director of the Air Permitting Division. Such requests will be considered for approval only when the owner or operator demonstrates that the change does not increase actual emissions of sulfuric acid mist above the currently approved information.

B. LIMITATIONS, MONITORING, AND REPORTING	
Condition Number	**Conditions**
	The request to modify the algorithm or the minimum amount of hydrated lime required shall include an engineering analysis and supporting documentation explaining the request. Until a new approval has been granted by the BAQ, the facility shall continue to comply with the most recent approval.
B.14	**Equipment ID:** B03, B04 **Control Device ID:** HLIS 3, HLIS 4 (S.C. Regulation 61-62.5, Standard No. 7) The owner/operator shall maintain records of boiler load, net power generated, inlet SO_2 emissions of the desulfurization scrubber, the amount of actual hydrated lime injected, the minimum amount of calculated hydrated lime to be injected as derived from the AMMA for each boiler (when the boiler load is greater than or equal to 450 MWg) and any other records necessary to demonstrate that the amount of hydrated lime injection into the flue gas stream is equal to or greater than the amount required as approved in accordance with this permit. Data shall be reduced to three-hour block averages for boiler load, net power generated, inlet SO_2 emissions of the desulfurization scrubber, and the actual amount of hydrated lime injected. Three-hour block averages shall be calculated for the minimum amount of hydrated lime to be injected as derived from the AMMA for each boiler when the boiler load is greater than or equal to 450 MWg. Instances when the three-hour block average of actual amount of hydrated lime injected into the flue gas stream of the associated boiler (1) did not equal or exceed the minimum amount derived by the AMMA (for boiler loads greater than or equal to 450 MWg) or (2) was not at least the minimum amount approved for boiler loads less than 450 MWg shall be submitted quarterly to the Manager of Technical Management. If no such instance occurred during the reporting period, a statement indicating that shall be submitted.
B.15	**Equipment ID:** B03, B04 **Control Device ID:** HLIS 3, HLIS 4 (S.C. Regulation 61-62.5, Standard No. 7) Within 180 days of start-up of the associated permanent hydrated lime system, the owner/operator shall conduct initial source tests to demonstrate compliance with the SAM BACT emission limit for Boiler 3 and Boiler 4. These tests shall be conducted at three load levels and two sulfur levels, as measured through the SO_2 inlet CEMs of the FGD, for each load (for a total of six tests). Each test shall consist of three one hour runs. The load levels shall be the following: (1) less than 450 MWg, (2) greater than or equal to 450 MWg and less than 550 MWg, and (3) greater than or equal to 550 MWg. The two SO_2 inlet CEM levels shall be based on the FGD inlet SO_2 CEMs readings. The low SO_2 inlet CEM level shall be within 10% of the minimum FGD inlet SO_2 CEMs readings (3 hour rolling averages) during the previous four (4) quarters. The high SO_2 inlet CEM level shall be within 10% of the maximum FGD inlet SO_2 CEMs readings (3 hour rolling averages) during the previous four (4) quarters. The amount of hydrated lime injected shall be based on the acid mist mitigation algorithm (AMMA) for boiler loads greater than or equal to 450 MWg. For boiler loads less than 450 MWg, 873 lbs/hr of hydrated lime shall be injected.

B. LIMITATIONS, MONITORING, AND REPORTING	
Condition Number	**Conditions**
B.16	**Equipment ID:** B03, B04 **Control Device ID:** HLIS 3, HLIS 4 (S.C. Regulation 61-62.5, Standard No. 7) Beginning within one year of the initial source test, the owner/operator shall conduct annual source tests to demonstrate compliance with the SAM BACT emission limit for Boiler 3 and Boiler 4. Each subsequent test shall be conducted annually in the same calendar quarter as the previous SAM emission test for each boiler. The test shall be conducted at a load greater than or equal to 550 MWg or the most frequently operated load, as described in 40CFR75 Appendix A, Section 6.5.2.1, and within 10% of the maximum FGD inlet SO_2 CEMs reading (3 hour rolling averages) during the previous four (4) quarters. Each test shall consist of three one hour runs. The amount of hydrated lime injected during the test shall be equal to the amount calculated by the AMMA.
B.17	**Equipment ID:** B03, B04 **Control Device ID:** HLIS 3, HLIS 4 The owner or operator may conduct additional source tests after the required initial tests at their discretion at different hydrated lime amounts to adjust the AMMA, the ratio of hydrated lime to the calculated SO_3 formation (X), and/or the minimum amount of hydrated lime required in the most recent approval from the Department. The BACT SAM emissions limit shall apply during the source tests, and the tests shall be conducted in accordance with S.C. Regulation 61-62.1, Section IV - Source Tests. The conditions of the proposed test (i.e. boiler load, FGD inlet SO_2 CEMs reading, etc...) shall be sufficient to support that adjusting the amount of hydrated lime will not increase actual emissions above the currently approved information. The source test plan required in S.C. Regulation 61-62.1, Section IV - Source Tests, shall clearly indicate that the purpose of the test is to evaluate adjusting the amount of hydrated lime and shall document for approval the conditions of the proposed test along with the justification of supporting the proposed conditions. Subsequent to receiving the source test approval from the Department, the owner or operator may request to modify the AMMA, the ratio of hydrated lime to the calculated SO_3 formation (X), or the minimum amount of hydrated lime required for boiler loads less than 450 MWg by letter to the Director of the Air Permitting Division. Such requests will be considered for approval only when the owner or operator demonstrates that the change does not increase actual emissions of sulfuric acid mist above the currently approved information. The request to modify the algorithm or the minimum amount of hydrated lime required shall include an engineering analysis and supporting documentation explaining the request. Until written approval has been received, the owner or operator shall continue to comply with the most recent approval.
B.18	**Equipment ID:** B03, B04 **Control Device ID:** HLIS 3, HLIS 4

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
	(S.C. Regulation 61-62.1 Section II (J)(2)) The owner/operator shall begin operation of the Permanent Hydrated Lime Injection Systems for both Boiler 3 and Boiler 4 within 730 days of the effective date of this permit. The owner/operator shall continue to operate the existing temporary hydrated lime system on each boiler until the associated permanent systems is in place and operational.
B.19	**Equipment ID:** B03, B04 **Control Device ID:** HLIS 3, HLIS 4 (S.C. Regulation 61-62.5, Standard No. 7) To minimize malfunctions of the hydrated lime injection systems and resulting excess SAM emissions, the owner/operator shall submit to the Director of the Air Permitting Division a preventative maintenance plan within 60 days of startup. The plan shall include at a minimum annual preventive maintenance on each system. The plan and associated records shall be kept for a period of five (5) years and made available to the Department upon request.
B.20	**Equipment ID:** B03, B04 **Control Device ID:** HLIS 3, HLIS 4 (S.C. Regulation 61-62.5, Standard No. 7) The permittee shall maintain a list and inventory of spare parts associated with the hydrated lime handling and injection systems and the AMMA system equipment to facilitate quick repairs. When a malfunction occurs, the permittee shall immediately investigate to determine the corrective action required. For malfunctions that last more than 24 hours, the owner/operator shall notify in writing the Director of the Air Permitting Division within 48 hours on the plan to mitigate SAM emissions during the repair.

C. NESHAP (40 CFR 61 AND 40 CFR 63) – RESERVED

D. GENERAL FACILITY WIDE

Condition Number	Conditions
D.1	The owner or operator shall comply with S.C. Regulation 61-62.6, Control of Fugitive Particulate Matter, Section III Control of Fugitive Particulate Matter Statewide.
D.2	The permittee shall pay permit fees to the Department in accordance with the requirements of S.C. Regulation 61-30, Environmental Protection Fees.
D.3	In the event of an emergency, as defined in S.C. Regulation 61-62.1, Section II(L), the owner or operator may document an emergency situation through properly signed, contemporaneous

D. GENERAL FACILITY WIDE	
Condition Number	**Conditions**
	operating logs, and other relevant evidence that verify: 1. An emergency occurred, and the owner or operator can identify the cause(s) of the emergency; 2. The permitted source was at the time the emergency occurred being properly operated; 3. During the period of the emergency, the owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and 4. The owner or operator gave a verbal notification of the emergency to the Department within twenty-four (24) hours of the time when emission limitations were exceeded, followed by a written report within thirty (30) days. The written report shall include, at a minimum, the information required by S.C. Regulation 61-62.1, Section II(J)(1)(c)(i) through (J)(1)(c)(viii). The written report shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
D.4	(S.C. Regulation 61-62.1, Section II(O)) Upon presentation of credentials and other documents as may be required by law, the owner or operator shall allow the Department or an authorized representative to perform the following: 1. Enter the facility where emissions-related activity is conducted, or where records must be kept under the conditions of the permit. 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. 3. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit. 4. As authorized by the Federal Clean Air Act and/or the S.C. Pollution Control Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
D.5	(S.C. Regulation 61-62.1, Section II(J)(1)(a)) No applicable law, regulation, or standard will be contravened.
D.6	(S.C. Regulation 61-62.1, Section II(J)(1)(e)) Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to this regulation or with the terms of any approval to construct, or who commences construction after the effective date of these regulations without applying for and receiving approval hereunder, shall be subject to enforcement action.

E. EMISSIONS INVENTORY REPORTS – RESERVED

F. GENERAL RECORD KEEPING AND REPORTING

Condition Number	Conditions
F.1	(S.C. Regulation 61-62.1, Section II(J)(1)(g)) A copy of the Department issued construction and/or operating permit must be kept readily available at the facility at all times. The owner or operator shall maintain such operational records; make reports; install, use, and maintain monitoring equipment or methods; sample and analyze emissions or discharges in accordance with prescribed methods at locations, intervals, and procedures as the Department shall prescribe; and provide such other information as the Department reasonably may require. All records required to demonstrate compliance with the limits established under this permit shall be maintained on site for a period of at least five (5) years from the date the record was generated and shall be made available to a Department representative upon request.
F.2	The owner or operator shall submit reports required in this permit in a timely manner and according to the reporting schedule established through the Department's approved electronic permitting system.
F.3	All reports and notifications required under this permit shall be submitted to the Department.
F.4	(S.C. Regulation 61-62.1, Section II(A)(3)) The owner or operator shall submit written notification to the Department of the date construction is commenced, postmarked within thirty (30) days after such date.
F.5	(S.C. Regulation 61-62.1, Section II(J)(1)(c)) For sources not required to have continuous emission monitors, any malfunction of air pollution control equipment or system, process upset, or other equipment failure which results in discharges of air contaminants lasting for one (1) hour or more and which are greater than those discharges described for normal operation in the permit application, shall be reported to the Department within twenty-four (24) hours after the beginning of the occurrence and a written report shall be submitted to the Department within thirty (30) days. The written report shall include, at a minimum, the following: 1. The identity of the stack and/or emission point where the excess emissions occurred; 2. The magnitude of excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the excess emissions; 3. The time and duration of excess emissions; 4. The identity of the equipment causing the excess emissions; 5. The nature and cause of such excess emissions; 6. The steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction; 7. The steps taken to limit the excess emissions; and, 8. Documentation that the air pollution control equipment, process equipment, or processes

F. GENERAL RECORD KEEPING AND REPORTING	
Condition Number	**Conditions**
	were at all times maintained and operated, to the maximum extent practicable, in a manner consistent with good practice for minimizing emissions. The initial twenty-four (24) hour notification should be made to the Department's local Regional Office. The written report should be sent to the Department.

G. PERMIT EXPIRATION AND EXTENSION	
Condition Number	**Conditions**
G.1	(S.C. Regulation 61-62.1, Section II(A)(4) and (5) and S.C. Regulation 61-62.1, Section II(J)(1)(f)) Approval to construct shall become invalid if construction: a. Is not commenced within eighteen (18) months after receipt of such approval; b. Is discontinued for a period of eighteen (18) months or more; or c. Is not completed within a reasonable time as deemed by the Department. The Department may extend the construction permit for an additional eighteen (18) month period upon a satisfactory showing that an extension is justified. This request must be made prior to the permit expiration. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within eighteen (18) months of the projected and approved commencement date.

H. PERMIT TO OPERATE	
Condition Number	**Conditions**
H.1	(S.C. Regulation 61-62.1, Section II(F)(3)) When a Department issued construction permit includes engineering and/or construction specifications, the owner or operator or professional engineer in charge of the project shall certify that, to the best of his/her knowledge and belief and as a result of periodic observation during construction, the construction under application has been completed in accordance with the specifications agreed upon in the construction permit issued by the Department. If construction is certified as provided above, the owner or operator may operate the source in compliance with the terms and conditions of the construction permit until the operating permit is

H. PERMIT TO OPERATE	
Condition Number	**Conditions**
	issued by the Department. If construction is not built as specified in the permit application and associated construction permit(s), the owner or operator must submit to the Department a complete description of modifications that are at variance with the documentation of the construction permitting determination prior to commencing operation. Construction variances that would trigger additional requirements that have not been addressed prior to start of operation shall be considered construction without a permit.
H.2	(S.C. Regulation 61-62.1, Section II(F)(1)) The owner or operator shall submit written notification to the Department of the actual date of initial startup of each new or altered source, postmarked within fifteen (15) days after such date. Any source that is required to obtain an air quality construction permit issued by the Department must obtain an operating permit when the new or altered source is placed into operation and shall comply with the requirements of this section.
H.3	(S.C. Regulation 61-62.1, Section II(F)(4)(a)) For sources covered by an effective Title V Operating Permit, the modification request required by S.C. Regulation 61-62.70 shall serve as the request to operate for the purposes of S.C. Regulation 61-62.1, Section II(F). The request should be made using the appropriate Title V modification form.

I. AMBIENT AIR STANDARDS	
Condition Number	**Conditions**
I.1	Air dispersion modeling (or other method) has previously demonstrated that this facility's operation will not interfere with the attainment and maintenance of any state or federal ambient air standard. Any changes in the parameters used in this demonstration may require a review by the facility to determine continuing compliance with these standards. These potential changes include any decrease in stack height, decrease in stack velocity, increase in stack diameter, decrease in stack exit temperature, increase in building height or building additions, increase in emission rates, decrease in distance between stack and property line, changes in vertical stack orientation, and installation of a rain cap that impedes vertical flow. Parameters that are not required in the determination will not invalidate the demonstration if they are modified. Variations from the input parameters in the demonstration shall not constitute a violation unless the maximum allowable ambient concentrations identified in the standard are exceeded. The owner or operator shall maintain this facility at or below the emission rates used in the most recent air dispersion modeling (or other method) demonstration submitted to and approved by the Department, not to exceed the pollutant limitations of this permit. Should the facility wish to increase the emission rates used in the demonstration, not to exceed the pollutant limitations in the body of this permit, it may do so by submitting a new demonstration for approval. This condition along with the referenced modeling demonstration will also serve to meet the intent of S.C. Regulation 61-62.5, Standard No. 8, Section II(D). This is a State Only enforceable requirement.